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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/506,032	07/24/1995	DONALD K. FOREST		9822

7590 04/03/2003

DONALD K FOREST
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EXAMINER

LIANG, REGINA

ART UNIT	PAPER NUMBER
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2674

70

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/506,032

Applicant(s)

FOREST, DONALD K.

Examiner

Regina Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,19-41,43-58,61-80,82-89,94,101-106,108 and 112-205 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,19-41,43-58,61-80,82-89,94,101-106,108 and 112-205 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Upon further consideration of applicant's arguments presented in the Appeal Brief filed on 9/16/99 and the Reply Brief filed on 3/6/00, the final office action is vacated and all the prior art rejections set forth in that office action are withdrawn.

2. **Since the claims in the present application are obvious over applicant's patented claims, an obvious type double patenting rejection is necessary; however, this rejection can be overcome by filing a proper terminal disclaimer; in which case this application would be in condition for allowance.**

3. The following is a statement of reasons for the indication of allowable subject matter: Ito (US. PAT. NO. 5,177,328) is the closest prior art of record, Ito discloses a display system for displaying a plurality of selectable regions on a display screen, one or more selectable region associated respectively with a sequence of one more character, and the plurality of selectable regions together at least partially circumscribing a region of the display.

However, Ito does not teach or suggest a system for selecting a menu option from a plurality of menu options, movement related signal receiving means for receiving a movement related signal indicating successive locations or a pointer responsive to the movement of a one of an operator's limbs, digits and head for indicating successive locations on the surface, and selection means responsive to a first dwell event associated with a particular one of the selectable regions, the particular selectable region interested by a plurality of the successive locations for selecting the menu option associated with the particular selectable region or the selection means

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in response a quantity equaling or exceeding a predetermined quantity, the quantity being a function of the durations of a plurality of successive periods of intersection of two or more of the successive locations and one of the selectable regions for selecting the menu option associated with the intersected selectable region as claimed in independent claims 1, 52, 53, 85, 166, 167, 170.

Ito does not teach or suggest the display system for selecting a menu option associated with an overshoot selectable region on the display, movement related signal receiving means for receiving a movement related signal indicating successive locations, control means for moving the first cursor within the first polygon responsive to the successive locations indicated by the movement related signal, confining at least part of the first cursor to the first polygon and in response to the first quantity equaling or exceeding a predetermined quantity, the first quantity being a function of the durations of one or more successive periods of intersection of the first cursor and one of the selectable regions, selecting the menu option associated with the intersected selectable region as claimed in independent claim 19.

Ito does not teach or suggest the display system for selecting a submenu option from menu hierarchy, movement related signal receiving means for receiving a movement related signal indicating successive locations with respect to the display area, and selection means for selecting in response to the first dwell event the menu option associated with the first selectable region intersected by one of the successive locations indicated by the movement related signal, and for selecting in response to a second dwell event the submenu option associated with the second selectable region intersected by one of the successive locations indicated by the movement related signal as claimed in independent claim 33.

Ito does not teach or suggest the system for selecting a menu option from a plurality of menu options, movement related signal receiving means for receiving a movement related signal indicating a location with respect to the display area, a plurality of indicators each associated respectively with one of the selectable regions, for indicating which one of the selectable regions is intersected by the location as claimed in independent claim 39.

Ito does not teach or suggest the system for selecting an option from a menu, cursor movement means for receiving a movement related signal and for moving a cursor on a display responsive to the received movement signal, delimit means for delimiting on the display a first plurality of regions and a second plurality of selectable, each of the second plurality of selectable regions associated respectively with a menu option, and selection means responsive only to an intersection of the cursor and a first one of the first plurality of regions and thereafter to a first selection event associated with one of the second plurality of selectable regions, for selecting the menu option associated with the selectable region associated with the first selection event as claimed in independent claim 54.

Ito does not teach or suggest the system having a menu option selector comprising a clipper for generating a clipped location indicative of a location on the display area in responsive to the location indicated by the body member of the operator or a confiner for confining the location indicated by the body member of the operator, and a selector for selecting the menu option associated with the selectable region intersected by the clipped location in response to a selection event or a selector for selecting the menu option associated the selectable region intersected by the location indicated by the body member of the operator in response to a selection event or a selector for selecting in response to a dwell event associated with any one of

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the selectable region the menu option associated with the selectable region associated with the dwell event as claimed in independent claims 61, 62, 65, 79, 89.

Ito does not teach or suggest the system for selecting an option from a menu, each menu option associated respectively with a position of a user activatable switch outside the display area, the switch being positionable with respect to the location of each menu option for selection thereof, and a selector for selecting a particular one of the menu options in response to a first position of the switch corresponding to the particular menu option for a period equaling or exceeding a first predetermined time period as claim in independent claim 67.

Ito does not teach or suggest the system including a display on which a cursor is displayed, receiving a movement related signal and moving at least part of the cursor only within the polygon responsive to the movement related signal, and in response to a first quantity equaling or exceeding a predetermined quantity, the first quantity being a function of the durations of one or more successive periods of intersection of the cursor and one of the one or more selectable region, inputting the sequence of one of more characters associated with the intersected selectable region to the application program as claimed in independent claim 70.

Ito does not teach or suggest a data entry comprising moving a cursor within the polygon responsive to movement of the pointer or receiving a movement related signal and moving at least part of a cursor only within the polygon responsive to the movement related signal, and in response to a selection event and an intersection of the cursor and a selectable region associated with in input for the application program or in response to a selection event generating a device control signal corresponding to the device control function associated with the one of the

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plurality of selectable regions intersected by the cursor as claimed in independent claims 71, 72, 74.

Ito does not teach or suggest a voice output system for a user having impaired speech comprising a voice output device, control means for receiving a movement related signal and moving a cursor within the polygon responsive to the movement related signal, in response to a succession of selection events, each associated respectively with an intersection of the cursor and one of the selectable regions associated with one or more sequences of one or more letters, or in response to a first quantity equaling or exceeding a predetermined quantity, the first quantity being a function of the durations of one or more successive periods of intersection of the cursor and one of the more or more selectable region, selecting the sequence associated with the intersected selectable region, and appending the sequence associated with the intersected selectable region to at least one previously selected sequence, or an indicator for indicating in a first manner at least the difference between the time the second location occurs and the time the first location occurs, and speaking by means of the voice output device the word spelled by the appended sequences or the voice output device for speaking the sequence of one or more character and/or words associated with the selectable region responsive to a first quantity that is a function of the difference equaling or exceeding a predetermined quantity as claimed in independent claims 73, 80, 94, 106, 114, 134, 159, 160, 162, 164, 198.

Ito does not teach or suggest a voice output system comprising a movement related signal receiver for receiving a movement related signal indicating a location with respect to the display area responsive to user movement by a user, the user movement indicating a potential user selection, a menu hierarchy including a menu comprising a plurality of menu options, a specific

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one of the menu options associated with a submenu comprising a plurality of submenu options, each of the submenu options associated respectively with a sequence of one or more characters, a sequence of one or more words, or a sequence of one or more symbols representing the sequence of one or more words, a delimit device for delimiting a first and second plurality of selectable regions adjacent the periphery of the working region, each of the selectable regions having an external boundary wherein the external boundary includes the side of the selectable region furthest from the working region and having wither a confiner for preventing the movement related signal indicating the location from moving beyond the external boundary of the selectable region or having an activation area extending beyond the external boundary of the selectable region and beyond the display area, a specific one of the first plurality of selectable regions associated with the specific menu option and each of the second plurality of selectable regions associated respectively with and simultaneously displaying one of the submenu options, and a voice output for speaking the particular sequence of one or more characters and/or words associated with a particular one of the second plurality of selectable region responsive to a first intersection of the movement related signal and the specific selectable region or the activation area associated therewith and thereafter to a second intersection of the movement related signal and the particular selectable region or the activation area associated therewith, thereby providing the user with the ability to select each of the specific and the particular selectable regions while overshooting the specific or the particular selectable region or by providing a confiner to the specific or the particular selectable region for the movement related signal as claimed in independent claims 147, 155, 161, 163, 165.

Ito does not teach or suggest an apparatus for editing a document comprising means for selecting a first sequence of one or more graphic symbols from a plurality of sequences of one or more graphic symbols, at least part of each of the plurality of sequences having a common attribute for optical recognition purpose, means for inputting the first sequence into the document, means for receiving a movement related signal and moving a cursor on the display responsive thereto, in response to a selection event wherein the cursor at or near the time the selection event occurs intersects any one of the at least two selectable regions, means for inputting the sequence associated with the intersected selected region into the document as claimed in independent claim 76.

Ito does not teach or suggest a method of selecting menu option from a plurality of menu options, comprising each of the selectable regions including an invisible subregion outside the display area and a visible subregion on the display area, receiving a movement related signal indicating successive locations with respect to the display area, and in response to a dwell event associated with one of the selectable region, selecting the menu option associated with the selectable region associated the dwell event as claimed in independent claim 78.

Ito does not teach or suggest the system for selecting a menu options from a plurality of menu options, a movement related signal receiver for receiving a movement related signal indicating a location to be selected with respect to the display area responsive to a user selection by a user, each of selectable regions having an external boundary wherein the external boundary is the side of the selectable region furthest from the working area, each of the selectable regions having a confiner for preventing the movement related signal indicating the location from moving beyond the external boundary of the selectable region or having an activation area

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extending beyond the external boundary of the selectable region, a selection device for selecting the menu option associated with a particular one of the selectable regions responsive to an intersection of the movement related signal and the particular selectable region or the activation area associated therewith, thereby providing the user with the ability to select the particular selectable region while overshooting the particular selectable region with the movement related signal or by providing a confiner to the particular selectable region for the movement related signal as claimed in independent claim 158.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 19-41, 43-58, 61-80, 82-89, 94, 101-106, 108, 112-205 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-83 of U.S. Patent No. 6,160,536. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 19-41, 43-58, 61-80, 82-89, 94, 101-106, 108, 112-205 of this application are broader version of patented claims.

The following is an example for comparing claim 85 of this application and claim 9 of U.S. Patent No. 6,160,536.

Claim 85 of this application	Claim 9 of U.S. Patent No. 6,160,536
An apparatus for selecting a menu option from a plurality of menu options, said apparatus comprising: a surface;	For use with a user interface system wherein a body member of a user indicates successive locations with respect to a surface, a menu option selector comprising:
means for delimiting a plurality of selectable regions on the surface, the plurality of selectable regions together at least partially circumscribing a region on the surface;	the surface with a respect to which a selectable region is capable of being at least partially delimited, the selectable region associated with a menu option;
a pointer, responsive to the movement of a body member of a user, for indicating successive locations on the surface; sensor signal receiving means for receiving a sensor signal; and	a detector for detecting the successive locations indicated by the body member, and
	an indicator for indicating the duration of each of: a first period of time during which two or more of the successive locations intersect the selectable regions; a second period of time, occurring after the

	<p>first period, during which two or more of the successive locations do not intersect the selectable regions, and</p> <p>a third period of time, occurring after the second period, during which two or more of successive locations intersect the selectable region; and</p>
<p>selection means</p> <p>responsive to the sensor signal, for associating each of the selectable regions respectively with the menu options of one of the plurality of menu options, and</p> <p>responsive to a quantity equaling or exceeding a predetermined quantity, the quantity being a function of the durations of one or more successive periods of intersection of two or more of the successive locations and a particular selectable region, for selecting the menu option associated with the particular selectable region.</p>	<p>a selection device, responsive to a first quantity equaling or exceeding a first predetermined quantity, the first quantity being a function of the duration of each of the first, second, and third periods, for selecting the menu option.</p>

As can be seen above, claim 85 of this application is similar to claim 9 of U.S. Patent No. 6,160,536 and is broader version of patented claim 9. Claim 9 of U.S. Patent No. 6,160,536 has additional limitation of an indicator for indicating the duration of a first, second and third periods of time, however, the differences are not patentable distinct because it would have been obvious to have an indicator in the device in order to indicate to a user a passing of the predetermined quantity, where the quantity being a function of the durations of one or more successive periods of intersection of two or more of the successive locations and a particular selectable region, in order to accurately select the desired selectable region.

6. Claims 1, 19-41, 43-58, 61-80, 82-89, 94, 101-106, 108, 112-205 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-128 of U.S. Patent No. 6,005,549 in view of McClish (WO 94/03887).

The following is an example for comparing claim 70 of this application and claims 37, 38 of U.S. Patent No. 6,005,549.

Claim 70 of this application	McClish (WO 94/03887)	Claims 37, 38 of U.S. Patent No. 6,005,549
For use with a general purpose computer system including a display on which a cursor may be displayed, the general purpose computer system		Although not shown, it would have been inherent to have a computer system and the general purpose computer system being capable of

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being capable of executing an application program, an apparatus comprising: (a) a medium readable by the general purpose computer system; and (b) a program, stored on the medium and executable by the general purpose computer system, for:		executing an application program,
	McClish teaches an ideographic character selection method and apparatus	A method of selecting a sequence of one or more graphic system from a plurality of sequences of one or more graphic symbols, one or more sequences of the plurality of sequences including one or more ideographs, said method comprising: each of the plurality of sequences having a common characteristic;

displaying a plurality of selectable regions within a polygon on the display, each selectable region adjacent a side of the polygon, one or more of the selectable regions each associated respectively with a sequence of one or more characters, the plurality of selectable regions together at least partially circumscribing a region on the display;		delimiting with respect to a display screen a plurality of selectable regions, the plurality of selectable regions together at least partially circumscribing a region on the display screen, each of the selectable regions associated respectively with one sequence of the plurality of sequences,
receiving a movement related signal and moving at least part of a cursor only within the polygon responsive to the movement related signal; and		receiving a movement related signal and moving a cursor on the display screen responsive thereto; and
in response to a first quantity equaling or exceeding a predetermined quantity, the first quantity being a function		responsive to: an intersection of the cursor and one of the particular selectable region, and

of the durations of one or more successive periods of intersection of the cursor and one of the one or more selectable region, inputting the sequence of one or more characters associated with the intersected selectable region to the application program.		a cursor path toward the intersected selectable region, selecting the sequence associated with the intersected selectable region. The selecting step is further responsive to the duration of the period of the intersection equaling or exceeding a selection threshold period.
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As can be seen above, claim 70 of this application differs from claims 37, 38 of U.S. Patent No. 6,005,549 in not having one or more sequences of the plurality of sequences including one or more ideographs. However, McClish teaches an ideographic character selection method and apparatus having one or more sequences of the plurality of sequences including one or more ideographs. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 70 of this application to have one or more sequences of the plurality of sequences including one or more ideographs for accelerated character entry for a written language.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (703) 305-4719. The examiner can normally be reached on Monday-Friday from 9AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

Any response to this action should be mailed to:

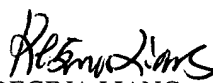
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or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


REGINA LIANG
PRIMARY EXAMINER
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RL